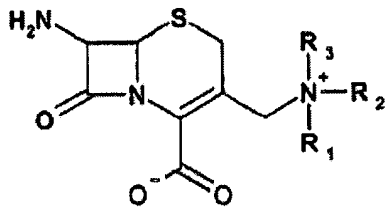
Abstract



(I)

The invention relates to a new process for the production of intermediates for the synthesis of cephalosporin of formula (I) wherein R_1, R_2 and R_3, independently of one another, are alkyl, alkenyl, aryl, hydroxy(C_{1-6})alkyl, carbamoyl-(C_{1-6})alkyl, amino-(C_{1-6})alkyl, acylamino-(C_{1-6})alkyl or carboxy(C_{1-6})alkyl, or wherein R_2 and R_3 together with the adjacent nitrogen atom, form an alicyclic 5- to 8-membered heterocyclic ring, and R_1 signifies alkyl, alkenyl or aryl. The process according to the invention is notable in that the formation of undesired by-products, especially Δ2-analogous compounds of formula (I), is greatly reduced.